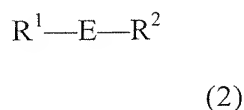


CLAIMS

1. Use of a catalytic system constituted by

(a) a strongly acidic ion-exchange resin-type polymeric catalyst (1), and

5 (b) a (co)oligomerization additive of general formula (2)



in which

E represents an element of group 16;

10 R^1 represents a hydrogen or deuterium atom;

R^2 represents a hydrogen or deuterium atom, or a group of formula $-\text{E}_{14}(\text{R}_{14})(\text{R}'_{14})(\text{R}''_{14})$;

E_{14} is an element of group 14;

R_{14} , R'_{14} and R''_{14} represent, independently, the hydrogen atom; the deuterium atom; one of the following substituted or non-substituted radicals: alkyl, cycloalkyl or aryl, and in
15 which said substituent or substituents are chosen from: halo, hydroxy, alkyl, alkoxy, cycloalkyl, cycloalkoxy, aryl, aryloxy, carboxy, alkoxy carbonyl, cycloalkoxy carbonyl and aryloxy carbonyl,

for the (co)oligomerization of lactide and glycolide by ring opening.

2. Use according to claim 1, characterized in that the quantity of monomer relative to
20 the (co)oligomerization additive is comprised between 2 and 30 molar equivalents and preferably between 4 and 10 molar equivalents.

3. Use according to one of the preceding claims, characterized in that the polymeric catalyst (1) is a styrene and divinylbenzene-based macroreticular resin with sulphonic acid functions.

25 4. Use according to one of the preceding claims, characterized in that the polymeric catalyst (1) is a macroreticular resin of the Amberlyst[®] or Dowex[®] type.

5. Use according to claim 4, characterized in that the polymeric catalyst (1) is a resin of the Amberlyst[®] type.

6. Use according to one of the preceding claims, characterized in that the compound of general formula (2) is such that

- 5 E represents an oxygen or sulphur atom;
 R¹ represents a hydrogen atom;
 R² represents a hydrogen atom or a group of formula -E₁₄(R₁₄)(R'₁₄)(R''₁₄);
 E₁₄ is a carbon or silicon atom;
 R₁₄, R'₁₄ and R''₁₄ represent, independently, the hydrogen atom, or one of the
10 following substituted or non-substituted radicals: alkyl, cycloalkyl or aryl, in which
 said substituent or substituents are chosen from: halo, alkyl, cycloalkyl, phenyl,
 naphthyl, carboxy and alkoxycarbonyl.

7. Use according to one of the preceding claims, characterized in that the compound of general formula (2) is such that

- 15 E represents an oxygen atom;
 R¹ represents a hydrogen atom;
 R² represents a hydrogen atom or a group of formula -E₁₄(R₁₄)(R'₁₄)(R''₁₄);
 E₁₄ is a carbon atom;
 R₁₄, R'₁₄ and R''₁₄ represent, independently, the hydrogen atom, or a substituted or
20 non-substituted alkyl radical in which said substituent or substituents are chosen
 from alkyl, carboxy and alkoxycarbonyl.

8. Use according to one of the preceding claims, characterized in that the compound of general formula (2) is such that

- 25 E represents an oxygen atom;
 R₁ a hydrogen atom;
 R² a hydrogen atom or a group of formula -E₁₄(R₁₄)(R'₁₄)(R''₁₄) in which E₁₄
 represents a carbon atom and R₁₄, R'₁₄ and R''₁₄ represent, independently, the
 hydrogen atom or an alkyl radical.

9. Use according to one of the preceding claims, characterized in that the compound of general formula (2) is either water or an alcohol.

10. Use according to claim 9, characterized in that the alcohol is an aliphatic alcohol.

11. Use according to claim 10, characterized in that the aliphatic alcohol is chosen from
5 isopropanol, pentan-1-ol and dodecan-1-ol.

12. A ring-opening lactide and glycolide (co)oligomerization method, which method consists of bringing together the monomer or monomers considered, a catalytic system as defined in one of claims 1 to 11, and an oligomerization solvent.

13. Method according to claim 12, characterized in that the temperature is comprised
10 between -20° C and approximately 150° C.

14. Method according to claim 13, characterized in that the method is carried out in solution at a temperature comprised between 20° C and 80° C.

15. Method according to one of claims 12 to 14, characterized in that the reaction time is comprised between one hour and 64 hours, and preferably between 14 hours and
15 48 hours.